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ABSTRACT

A standardized language arts achievement test can be used by language arts teachers as they plan the language arts curriculum, group pupils, individualize instruction, and identify pupils needing special help. Two interventions, training and process consultation, were used to identify the most effective method of training preservice elementary language arts teachers in the use of standardized tests. As a pretest, the student teachers were required to administer to their class a standardized language arts achievement test and to use the results in classroom planning in the nine weeks of their field experience. The student teachers were divided into three groups: Group I was the control group; the members in Group II were trained for three days in the use of standardized tests; and Group III received the three days of training as well as process consultation, which provided intraclassroom guidance and supervision to individual teachers. Process consultation, combined with training in the use of standardized tests, was the most effective training situation, since nine of the twelve teachers in Group III showed increased knowledge of the uses of standardized tests and their results. In comparison, six of the twelve teachers in Group I demonstrated increased knowledge, and eight of the twelve teachers in Group II increased their knowledge scores. Group III teachers also showed greater changes in attitudes and used a greater variety of materials and approaches. (FG)

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Training Pre-Service Elementary Teachers in Use of a Standardized Language Arts Achievement Test

Adapting the language arts curriculum to each individual student's style and needs, in order to bring out the best in each individual, requires gathering of quantitative and qualitative data. Analysis of test data can accelerate the process of assessing each pupil's specific needs.

A standardized language arts achievement test can be utilized by language arts teachers as a source of information as they plan the language arts curriculum, group pupils, individualize instruction, and identify pupils needing special help. Effective utilization of standardized test information in the decision making process requires measurement knowledge and skills. Smauel T. Mayo after conducting a study of pre-service preparation of teachers in educational measurement concluded that beginning teachers did **not** possess knowledge and skills in measurement.

Forty-six pre-service elementary teachers who were enrolled in their student teaching practicum at Eastern Illinois University, Charleston, Illinois, participated in an experimental project concerned with training pre-service teachers in the use of a standardized language arts achievement test. Each pre-service teacher was required to administer a standardized language arts achievement test, score the test, and then plan, organize, execute and evaluate a language arts program in an elementary classroom for a minimum of nine calendar weeks. These forty-six pre-service teachers were divided into three groups. One of these groups served as the control group with the other two groups serving as experimental groups. The intent

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and purpose of the study was to determine effectiveness and affectiveness of modes of interventions directed at training pre-service teachers in use of a standardized language arts achievement test.

Procedures

The Control group, Group 1, was asked to administer the language arts section of the CAT achievement test and to teach language arts to their respective classroom for nine consecutive weeks after testing. Group II, Training Only, was asked to do all of the above required of the Control group and was also asked in addition to attend three additional one day seminars on uses of information provided by the standardized language arts achievement tests. Group III, Process Consultation combined with Training, was asked to perform all the aforementioned tasks and in addition was given training and intraclassroom guidance and supervision, process consultation, as they utilized information provided by the standardized language arts achievement tests. These tasks are summarized as follows:

Group I: Control	Pre-test	Instruction in Administration of Standardized Test	CAT administration followed by 9 weeks of responsibility for teaching language arts	Post-tests

Group II: Training Only	Pre-test	Instruction in Administration of Standardized Test	CAT administration followed by 9 weeks of responsibility for teaching language arts with training in test use given	Post-tests
Group III: Process Consultation Combined With Training	Pre-test	Instruction in Administration of Standardized Test	CAT administration followed by 9 weeks of responsibility for teaching language arts with training in test use and process consultation given	Post-test

Post-tests, attitude and knowledge, were given to all members of the study population at the same points in time and all post-tests were administered after completion of the student teaching practicum experience.

The pre-service elementary teachers making up the three groups were all basically alike in preparation: all were enrolled in the student teaching practicum of Eastern Illinois University for fifteen semester hours of student teaching; none had prior teaching experience; and all were in the final stages of completing a B.S. in Education, specifically Elementary Education. Practicum experiences of study population members were all in basically rural communities within a fifty mile radius of Eastern Illinois University, Charleston, Illinois. Each practicum participant, pre-service elementary teacher, worked under the direct supervision of a cooperating teacher and a University Coordinator. The initial instruction in administration of a standardized test to all population study members, the subsequent

training of Group II and III, and process consultation of Group III was the responsibility of one individual.

The Group II and III training sessions were begun ten days following the initial instruction in administration of a standardized test. Scored tests and class profile sheets were to be readied for scrutinization at what would be the first of three training sessions. The training sessions involved direct teaching and experience in use of information provided by the standardized language arts achievement test. Following this first training session the Group III pre-service teachers were visited in their respective classrooms for the purpose of aiding and coaching each as they taught language arts and endeavored to utilize information provided by the standardized language arts achievement test. This process consultation was thereafter provided directly in the classroom at least once every ten school days with the pre-service teachers encouraged to contact the process consultant anytime they felt the need.

The first of two language arts teaching behaviors checklist, "Language Arts Teaching Behaviors: Checklist," was mailed to Cooperating teachers after all student teachers had been in assigned classrooms eight weeks and student teachers had been responsible for teaching in the area of language arts a miminun of four and one half weeks. The second and final language arts teaching behaviors checklist, "Language Arts Teaching Behaviors: Final Checklist," was sent to Cooperating teachers at the close of the fifteen week practicum participant's assignment. The checklist behaviors were those the training sessions and process consultations were designed and directed at effecting.

The training and process consultation were to be role-shaping in nature and intent. It was not the intent of either that the members of that sample become expert in testing, nor was any participant slated to become responsible for some area of a school's testing program. Rather, the intent was to help each become more competent in performing his/her teaching duties in the area of elementary language arts.

Statistical data was collected to analyze the effectiveness of the modes of intervention on the pre-service teachers' attitudes were also statistically scrutinized.

Study Findings

Increased objectively measurable knowledge of standardized achievement tests was correlated with the training and process consultation given to pre-service elementary language arts teachers. Training only, as given Group II, was related to increased objectively measurable knowledge of standardized achievement tests. Eight of the twelve pre-service elementary language arts teachers given only training, Group II, increased their knowledge scores, the scores of two individuals remained the same, and the scores of two persons decreased pre- to post-. The majority of the group given process consultation combined with training, Group III, likewise demonstrated increased objectively measurable knowledge of standardized achievement tests; nine scores went up, one remained the same, and two scores showed a decrease in knowledge.

The group given neither training or process consultation, Group I, did not demonstrate increased objectively measurable knowledge of standardized achievement tests: the scores of six of the twelve did increase, but one did not change and five decreased. Administration and scoring of a test

was a confusing experience for almost one-half the group. The evaluation experiences of the Control group, Group I, are the same experiences elementary language arts teachers are annually faced with. It is no wonder that elementary teachers have been found to make little use of standardized test information if the experiences of administering, scoring, analysis, and curriculum decision making have been confusing experiences and not contributory to their ability to understand and interpret the standardized achievement test information. Training directed at increasing measurement competencies can be utilized to increase pre-service elementary teachers' objectively measurable knowledge of standardized achievement tests. Training may well be an effective means of increasing in-service elementary language arts teachers objectively measurable knowledge of standardized achievement tests.

Training only, as given Group II, and process consultation combined with training, as given Group III, did affect attitudes. Affected attitudes were those directed toward the value of tests, kinds of information important enough to obtain, and educational viewpoints toward worthwhile language arts content and values of evaluation.

J. Thomas Hastings, in his study of teachers' use of test results, had hypothesized that "lacking optimum knowledge or training teachers would tend toward extremism in their perceptions of the value of tests..." (Use of Test Results, p. 61). In the summary of the study of test use Hastings stated:

> We learned that the more knowledgeable teachers were more prone... to hold a quizzical attitude--as opposed to an over-rejecting attitude--toward the value of test data... (Use of Test Results, p. 75)

After being given only training, pre-service elementary language arts teachers held a quizzical attitude toward the value of tests. Training and process consultation combined resulted in pre-service teachers adhering more nearly to an over-rejecting attitude toward the value of tests. Process consultation appears to have negated some of the modifying affects training had on pre-service elementary teachers' attitudes toward the value of tests. This negating effect may have also occurred in respect to objectively measureable knowledge. This assumption finds support in that training only, as given Group II, was more successful in increasing objectively measureable knowledge than was training combined with process consultation as given Group III. The consultant unknowingly may have confused a pre-service individual. The consultant was non-directive and attempted to stimulate the pre-service teacher to think and not just be a sponge. Some of the pre-service teachers' cognitive processes may have hit a point of confusion when the consultant was not available to clarify a misunderstanding.

Process consultation combined with training, as given Group III, and training only, as given Group II, did result in pre-service elementary teachers believing more information was so important that they would obtain it. The pre-service elementary teachers given process consultation combined with training, Group III, desired the greatest numbers of kinds of information. The group given no training or process consultation, Group I, felt fewer kinds of information were important enough to obtain. Process consultation combined with training and training only did affect pre-service elementary language arts teachers' views toward the value of possessing a diversity of kinds of information about each student.

Mayo, in the implications of his study, pointed out "the lack of deep commitment to problems and practices in evaluation" was one of the obstacles "impeding improvement of the measurement competency level of student teachers." (1967, p. 63) Process consultation combined with training was affective in causing pre-service elementary language arts teachers to strongly agree that evaluation can help a teacher see how effective she is in the area of language arts. Process consultation combined with training also resulted in pre-service elementary language arts teachers strongly agreeing that to be worthwhile, language arts content must be practically oriented.

The value of evaluation as a means to assess effectiveness was one of the themes of the training provided pre-service elementary teachers. It was also one of the attitudes the process evaluator sought to reinforce. The process consultant confessed to a personal bias that language arts content is considered most worthwhile when it is practically oriented. This was not knowingly emphasized in the training or process consultations. The level of agreement by pre-service elementary language arts teachers to the educational viewpoints regarding evaluation value and worthwhile language arts content were affected by training and process consultation.

J. Thomas Hastings, in 1960, suggested that a hypothesis worthy of future study "might be that activity stimulates activity." (Use of Test Results, p. 13) The activities employed in this study to stimulate standardized test use activity were training and process consultation. Training only, as given Group II, and process consultation combined with training, as given Group III, were successful in stimulating initiatory activities, discussion of test results with students, gathering of information

about students, and cosmetically oriented activities. Activity did stimulate activity, with the most activity, process consultation combined with training, generally stimulating the most activity.

Initiatory activities are activities that initiate an undertaking. Pre-service elementary teachers undertook to plan, execute, and evaluate their classroom language arts programs. Effective use of tests in clarifying and selecting language arts objectives and material development and selection are each initiatory activities. Each was effected by process consultation combined with training and training only.

Process consultation combined with training, Group III, resulted in pre-service elementary language arts teachers most effectively using tests to develop and select materials. They also effectively used test results in clarifying and selecting objectives. Initiatory activities involving utilization of test results can be effectively encouraged through training and process consultation. Process consultation adds a dimension of expectation that someone may notice or ask what test results have been used for. This level of expectation may contribute to greater initiating activity of pre-service elementary language arts teachers.

Process consultation combined with training, Group III, resulted in time being spent by each individual in gathering of information about students. Training only, Group II, also had influencing effects but not to the extent that training combined with process consultation did. The added dimension of process consultation again resulted in greater activity as it had in regard to initiatory activities.

Bernard Spodek, in his work with open classroom training programs, found what he termed "the onion skin theory" to be responsible for a

phenomenon he often observed occurring after training was given. The essence being that observable changes often come about with no underlying attitudinal changes occurring. Observable classroom changes are generally cosmetic in nature--cosmetic being something that would be obvious to an observer. Process consultation combined with training, as given Group III, resulted in the highest frequency of use of bulletin boards and tests and test results in the teaching of language arts. More one-to-one instruction, self-directed activities, and correlation of language arts skills with other content areas were also frequently utilized. Training alone, as given Group II, resulted in employment of the aforementioned organizational approaches to a lesser extent than did training combined with process consultation at all. Process consultation and training are effective in stimulating cosmetically oriented activities: frequent use of bulletin boards and tests and test results and employment of less traditional organizational approaches. The expectation that the process consultant would be looking for something when she visited may have prompted all or some of the cosmetically oriented activity.

Activity stimulated activity. Pre-service elementary language arts teachers given process consultation combined with training, Group III, and training only, Group II, when compared to previous pre-service elementary teachers that had assumed responsibility for teaching language arts spent more time gathering information, utilized test results more, discussed test results more with cooperating teachers and other educators, utilized a greater variety of materials, employed a greater diversity of approaches, and used standardized test results for more purposes. The pre-service

elementary teachers given no training or process consultation, Group I, when compared with previous pre-service elementary teachers spent equal time gathering information, utilized test results equally as well, discussed test results equally as much, used a equal variety of materials, employed an equal diversity of organizational approaches, and used standardized test results for equal numbers of purposes. Process consultation combined with training and training only did stiumlate more activity by pre-service elementary language arts teachers.

Process consultation combined with training stiumlated the most activity. In time spent gathering information, utilization of test results, discussion of test results with cooperating teachers and other educators, variety of materials, employment of diversity of organizational approaches, and use of standardized test results for more purposes, the pre-service elementary language arts teachers involved in intervention activities were regarded by the cooperating teachers as having done each better than their predecessors, more frequently than were pre-service teachers given only training. Training stimulated activity more than no training or process consultation, but less than process consultation and training combined. The more intervention activity, the greater the stimulation of activity. Process consultation combined with training and training only can be effectively utilized to stimulate pre-service elementary language arts teachers to: gather information about their students, use test results, utilize a greater variety of materials in teaching language arts, and to employ a greater variety of materials in the teaching of language arts.

Implications

Training was effective in increasing pre-service elementary language arts teachers' objectively measurable knowledge of standardized achievement tests. Combining the two organizational development interventions of process consultation and training was effective in increasing pre-service elementary language arts teachers' objectively measurable knowledge of standardized achievement tests and in role-shaping pre-service elementary teachers' standardized test use behaviors. Activity did stimulate activity. Additional and related research is needed.

Training is a viable way to increase pre-service teachers' objectively measurable knowledge of standardized achievement tests. Training may, therefore, be an efficacious method of increasing in-service elementary teachers' objectively measurable knowledge of standardized achievement tests. A future study worthy of undertaking may be to follow the training procedures employed in this study with a population of in-service elementary teachers.

The effectiveness of the two organizational development interventions to role-shape pre-service elementary language arts teachers' standardized test use behavior has several far-reaching implications to diverse bodies of knowledge: measurement competency, organizational development, and training of pre-service teachers. The body of research concerned with measurement competency has been limited. The Mayo study concluded that research needed to be done in the realm of effective training procedures. Combining training and process consultation was effective in role-shaping evaluation behaviors and, therefore, is worthy of consideration as a means of increasing measurement competency. Pre-service elementary teachers were given meaningful and relevant evaluation experiences which resulted in more effective performance of some evaluation role behaviors and more frequent performance of other

evaluation role behaviors. Objectively measurable knowledge of standardized achievement tests was simultaneously increased.

The organizational developmental interventions of training and process consultation were effective in role-shaping. Research compiling statistical evidence as to actual effectiveness of these two interventions had been previously scanty. This study provides statistical evidence that particularizes the affectiveness and effectiveness of training and process consultation. Process consultation increases the effectuality of training in the role-shaping of pre-service teachers' standardized test use behaviors. This combining of interventions may also be worthy of consideration in role-shaping of this specific or other specific in-service elementary teachers' behaviors.

Giving pre-service elementary language arts teachers training and process consultation combined with the meaningful and relevant experiences of administering a language arts standardized achievement test, scoring the tests, making language arts curricular decisions, and planning, executing and evaluating a classroom language arts program was effective in raising standardized achievement test measurement competencies, effecting pre-service elementary teachers' standardized test use behaviors, and affecting some of their attitudes toward tests and other kinds of information. It is logical, therefore, that providing meaningful and relevant experiences combined with training and process consultation directed at other specific competencies, behaviors, and attitudes in language arts or other elementary content areas may be an effective way to enhance pre-service teachers' classroom performance of behaviors beyond those related with utilization of standardized achievement test results.

Activity did stimulate activity. One intervention stimulated activity and two interventions stimulated more activity. Combinations of other inter-

ventions should be researched as to greater efficiency in effecting and affecting pre-service teachers' standardized test use and attitudes toward standardized tests. Attempts to role-shape pre-service teachers should take into account the effect of activity on activity. Research into the effect of activity on in-service teachers' activity should be pursued.

Additional and related research into training procedures effective and affective in role-shaping pre-service teachers' utilization of and attitudes toward standardized language arts achievement tests is called for. This study added to the body of knowledge concerned with utilization of and attitudes toward standardized language arts achievement tests but the evidence was indicative and not conclusive.

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Abstract

This article summarizes a statistical study of the training of preservice elementary language arts teachers in use of standardized language arts achievement tests. The pre-service elementary teachers composing the study population were given meaningful and relevant measurement experiences. Each administered a standardized language arts achievement test, scored the test, and then were given the opportunity to plan, organize, execute and evaluate a language arts program in an elementary classroom for a minimum of nine calendar weeks. Two modes of intervention were employed: training and process consultation combined with training. Training was given to two-thirds of the population. This training was directed at increasing measurement competencies. Demonstration of the competencies was encouraged and observed with additional guidance, given in the form of process consultation, provided to one-half of the two-thirds receiving training.

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